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MANHATTAN DISTRICT HISTORY

BOOK I - GENERAL

VOLUME 5

FISCAL PROCEDURES

CLASSIFICATION CANCELLED
DATE 13-17-59
For The Atomic Energy Commission
-H.7. Canall

Chief, Declassification Branch Fin

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This volume has been prepared to explain the purposes, scope, and effect of the Fiscal Procedures used by the Manhattan District. It presents the general plan of fiscal management and the various considerations which molded this plan into its present effective form.

This volume is arranged in the sequence of fiscal action. The discussion moves from the estimating and budgeting of funds to the audit of claims against such funds. The procedures of fiscal recordings and the audits and methods of related finance services are then discussed. The method of public fund disbursements to satisfy the audited and approved claims, and the discussion of costs and cost keeping procedures follow. As an explanatory medium, the final section of this volume sets forth the organisation maintained to accomplish these purposes, and indicates the periodic changes in this organisation.

The data contained in this volume are based on the General Files of the District Engineer and data contained in the records of the Engineer Disbursing Officer, the Fiscal Officer, and the Reports and Statistics Section in the District Headquarters. This volume covers the period from the inception of the Manhattan District to 31 December 1946.

The Summary contained in this volume is a condensation of the main text and has been included as a short and comprehensive picture of all the material in this volume. The numbers and titles of sections, as used in the main text, are keyed in the Summary by underscoring the title word.





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Appendices to this volume are grouped by Charts or Graphs (listed in Appendix "A"), Tabulations (listed in Appendix "B"), Documents (listed in Appendix "C") and Reference (listed in Appendix "D"). Each item is numbered within its group, and is referred to by letter and number in the text.

15 November 1947



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ADDINDIR TO FORWORD

To supplement this history of the Fiscal Procedures used by the Vanhattan Histrict, reference should be made to the testimony of Mr. Lindsay C. Warren, Comptroller General of the United States, at the Hearings before the Special Committee on Atomic Energy, United States Senate, on 4 April 1946.

It is with great pride that the Fanhattan District quotes the following pertinent excerpts from the Comptroller General's testimony:

"We have audited or are auditing every single penny expended on this project... We audited on the spot and kept it current, and I might say it has been a remarkably clean expenditure..."

"...the very fact...that our men were there where the agents of the Government could consult with them time after time assured, in my opinion, a proper accountability..."

"...From the very beginning he" (General Groves) "has insisted upon a full audit and a full accountability to the General Accounting Office..."

(See the printed record of the Committee's Hearings, Part 5, page 500)

15 May 1946



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SUMMARY

- Introduction. The purpose of the fiscal procedures was to provide effective controls for use of Government funds. The standard procedures used were established by the Budget and Accounting Act of 1921 which provided for the following functions: the preparation of an annual budget, the allocation of funds by the Bureau of the Budget, the Accounting procedures prescribed by the Comptroller General of the United States, and the auditing procedures. Two special considerations affected the application of the standard procedures of the War Department within the Manhattan District. First, security necessarily entailed limitations in the preparation of estimates and in the cost accounting because the information divulged to each individual was restricted to immediate needs.

 Second, the wide geographic dispersion of the District increased the difficulty of pooling information because the research, design, and construction personnel had only limited contacts.
- 2. Estimates and Budgets. In the early months of the project no standard procedure for obtaining estimates was followed because of the lack of basic estimate data and rapidly changing plans. However, as engineering designs developed, it became more feasible to prepare construction estimates in the usual manner; and beginning March 1945, construction estimates were submitted monthly by the Area Engineers. Operating estimates were first obtained at such intervals as program changes were considered to warrant and later at monthly intervals when actual operations began (early 1944). The latest construction and operation field estimates were coordinated and compiled each month to give a total District estimate.





Annual budgets were not submitted prior to the fiscal year 1946 because of the need for security and the impossibility of making basic decisions so far in advance. In view of those conditions, authority had been received to incur obligations in excess of available funds. In lieu of the annual budget procedure, fund requirements were reviewed from time to time; and arrangements were made to provide necessary allotments from funds available to the War Department. Actual allotments to 30 June 1946 were 2446 millions and 397 millions were requested for fiscal year 1947.

375 millions were actually appropriated by Public Law 515. A portion of this was transferred to the Atomic Energy Commission as well as unexpended balances of prior year funds.

3. Contract Audit. - The objective of the District audit was to ascertain that the contractors' invoices were in accordance with the provisions of the contracts and were substantiated by accounting records and other supporting evidence. Where a contractor's system of internal control was satisfactory, the interests of the Government were protected by the selection of a representative section of the contractor's transactions for detailed audit. The extent of the selective audit was determined by a review and analysis of the contractor's control system; and, although emphasis was placed on the examination of the larger classes of transactions, representative groups of all classes were sudited. A fixed and continuing pattern of selective audit was carefully avoided, and a complete detailed check was made where numerous errors were discovered in a contractor's accounts. The primary results of the selective audit were: reduction in the cost of auditing, more satisfactory audits, and acceleration of reimbursements to cost-plus-fixed-fee contractors. For audit of research contracts a method known as the "OSRD Procedure" was





inaugurated because the research work being performed did not lend itself to more detailed procedures.

Voucher procedures followed the war Department regulations. Reimbursement vouchers were prepared by the contractor and submitted to the Government Auditor to whom the audit responsibility for the contract had been assigned. If the woucher was approved, it was submitted to the appropriate Contracting Officer for certification and then submitted in the usual manner to District Headquarters for payment. After receipt at the headquarters, the claim was given a final review by the District Audit Staff prior to presentation for payment. The preparation of reimbursement vouchers varied with the type of contract and the degree of security required, and all vouchers of the District were segregated accordingly into six groups. The two major reasons for the groupings were first, the need for security of the project, and second, the avoidance of delay in the General Accounting Office audits. Under this system of groupings all vouchers whose contents and names were classified as mandatory "Secret" were paid in the District Headquarters at Oak Ridge within the security surveillance of the District. The system indirectly resulted in increased disbursements by the Finance Officer at Knoxville and thereby permitted the maintenance of only a minimum staff of finance employees in the District Headquarters, which was also desirable from a security viewpoint. Because of the great distances involved, a deviation from the voucher preparation procedures was made for unclassified reimbursements vouchers originating at Hanford Engineer Works whereby payment was made by the Finance Officer, Vancouver Barracks, Washington, Contracting Officers were given the authority to make advance payments, and they were responsible



The General Accounting Office was charged with an independent postaudit of public fund disbursements under the Budget and Accounting Act of 1921, and the War Department authorities were responsible for the administrative audit of cost-plus-fixed-fee contracts. Originally, paid vouchers were surrendered to the Chief of Finance, U. S. Army, for subsequent delivery to the General Accounting Office in Washington; later they were delivered through Army Regional Accounting Offices. Because the accumulation of paid vouchers at locations outside the control of the District might have seriously impaired the security of the program, two General Accounting Office Project Audit Groups were established at the District Headquarters in Oak Ridge, Tennessee, and at the Hanford Engineer Works in Richland, Washington. Under that setup the paid vouchers and contracts were placed in the custody of the General Accounting Office as required by law, and the necessary security was maintained. The security requirements largely determined the scope of the General Accounting Office Project Audit and complicated the procedures with tasks not normally encountered. Two major deviations from standardized procedures were necessary in connection with District relations with General Accounting Office. First, the procedure for documentation and classification of reimbursement vouchers was modified to safeguard security; and second, the method of procedures for Formal Notice of Exception and related reclaim vouchers was adapted to District needs.

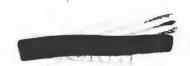
4. Finance. - The Finance procedures used by the Manhattan District were those prescribed by the Office of the Fiscal Director, Army Service





Forces, and by the Office, Chief of Engineers, for use at field installations. The procedures provided effective controls over the use of appropriated funds and facilitated the preparation of financial reports for District administrative purposes and for the information of higher authority. The District finance procedures were segregated into two general parts, namely, accounting and vouchering. The accounting procedures was further divided into five groups. (1) Allotments of funds for construction, operation, and special purposes were entered in the District ledgers; and the area offices were notified of the nature and the limitations on the use of the funds. (2) Obligation records were maintained in the District office, and a procedure for over-obligating funds was worked out. (3) Expenditure records were maintained by posting the totals of the vouchers paid by the various disbursing officers, and monthly reports of obligations and expenditures were prepared for the Chief of Engineers. (4) Advanced payments to contractors were recorded and constantly checked. (5) Payments to other Governmental Agencies were made either directly by the District or by financing through the Office, Chief of Engineers.

The second general part of Finance dealt with voucher procedures for travel and commercial accounts. Travel accounts were represented by claims for reimbursement of travel expenses incurred on official business trips. Travel vouchers were normally submitted to the Travel Unit which performed the audit of the travel accounts, although exceptions to the general procedures were made in the case of the Santa Fe Area and the Hanford Engineer Works. Conformity with regulations was the general rule; but two major deviations were necessary, first, to prevent undue



hardship by allowing more prompt and more frequent reimbursement in some cases, and second, to guard security when air travel was necessary.

Commercial accounts generally denoted direct procurement by War Department purchase order, service contracts, and interdepartment and interagency vouchers. The voucher channels for commercial accounts were similar to those for travel accounts. Two reports on commercial accounts, one to the Fiscal Director and one to the Office, Chief of Engineers, were submitted each month.

5. Disbursing. - The disbursements made by authorised War Department Officers follow, in general, the uniform procedures prescribed by the Comptroller General of the United States. These procedures together with the procedures of the War Department form a basis for the disbursing activities of the District. At the inception of the District all wouchers were submitted to the Engineer Disbursing Officer in the District Headquarters for payment. The increasing complexity and magnitude of business from month to month resulted in a volume of disbursements by the Engineer Disbursing Officer which was most unusual. The contemplated decentralization of the disbursement activities was considered seriously, therefore, in May 1943. Decentralisation, however, was not practicable if extended to Disbursing Officers operating outside the District's immediate security surveillance and the establishment of two additional Engineer Disbursing Officers within the District was therefore proposed to the Chief of Finance. This proposal was disapproved because of an established policy of the Headquarters. Services of Supply, and the details of decentralisa-





U. S. Army Finance Officers would process contract payments on a "strip-voucher" basis; that the Engineer Disbursing Officer in the District Head-quarters would process all classified payments; that the General Accounting Office would provide Project Audit Groups for the Clinton Engineer Works and the Hanford Engineer Works; and that prompt payment by U. S. Army Finance Officers would be assured. Inspections of a Disbursing Officer's money accounts by the Inspector General's Department were generally performed twice annually. Inspections of the Manhattan District Engineer Disbursing Office were performed on 20 Movember 1942, 5 April 1943, 22 June 1944, 8 December 1944, 13 June 1945, 18 January 1946, and 10 June 1946.

6. Cost Accounting. - The cost accounting procedures of the District differed widely from the regular cost accounting requirements prescribed by the Chief of Engineers for the normal U. S. Engineer installation. The very nature of the District made it impossible to assay the cost accounting requirements from an overall standpoint or to give the subject the complete study and planning usually connected with devising a well integrated cost system. The cost accounting problems, therefore, had to be approached on a daily basis. The purposes of the District's cost accounting were to provide a simple and comprehensive set of cost accounts and procedures, to provide controls as a means of checking Area and Contractor's costs, to provide estimate information, to develop construction cost data, to provide information to permit an internal check of fiscal accounts, to provide reliable data for historical record pur-





poses, to provide basic cost data for special studies, and to provide a means for the determination of efficiency, economy, and improvement of operations. The cost vouchers which were processed by the District Cost Section through 31 December 1946 amounted to gross costs of approximately \$2,200,000,000. However, certain costs were excluded in recording the gross costs, such as allotments by the Chief of Engineers to other agencies for work performed for the District, open allotments, free depot issues, and expenditures by the Office of Scientific Research and Development prior to the inception of the District. Security regulations created difficult cost accounting problems because of the division of the work among many contractors and the withholding of pertinent information for security reasons.

The Cost Section of the District Readquarters devised the general procedures in accordance with the policy of the War Department and reviewed the contractors' cost procedures for adequacy. The basic cost accounting principles of the general procedures were divided into three main groups: direct costs, indirect costs, and deferred costs. The costs from the deferred cost accounts ("holding" accounts) were transferred eventually to either direct cost accounts or indirect cost accounts. Upon final accounting all indirect costs are to be allocated to direct costs which then will reflect the total cost incurred for the particular undertaking. The cost accounts were maintained according to a classification of accounts which included District overhead, Area overhead, hired labor accounts, contract costs, general ledger accounts and detail cost codes. The accounts employed for original entries consisted of deferred and indirect types of accounts whose final cost applications were left for later determination because security prevented direct applications



of costs. However, a monthly cost statement prepared from such records was not sufficient for budgeting and control purposes; and in December 1944 a breakdown by principal programs was inaugurated to facilitate this control. As of this writing construction costs for final statement are in the developmental stages. Research costs are also being compiled and allocated. Security and other factors made impracticable any attempt to formulate a cost system which would indicate successive operating costs. Therefore, the final military report of operating costs will be stated in terms of contracts and programs.

The general cost theories were applied by means of specific procedures. The basic accounts and records in the District Headquarters were divided into those costs involving expenditures of funds directly allotted to the District, and other costs, such as free issues which involve no expenditures of District allotment of funds. In addition to the cost accounts maintained in the District Headquarters, accounts were maintained in the larger areas covering work there. At the Hanford Engineer Works, independent cost accounts were maintained and although general control accounts were maintained in the District Headquarters for the Santa Fe Area, this Area was permitted to function as a unit and to establish its own detail accounts. The recording and filing of costs consisted of cost entries prepared from disbursement, collection, and transfer vouchers; cost vouchers filed in numerical sequence by months; cost ledger sheets filed by fiscal year; and contractors' cost statements. Cost data were compiled in the form of cost statements each month by the District Cost Section, the Area Offices, and cost-plus-fixed-fee contractors.



The cost reports were retained in the District Headquarters or the area offices as classified material.

7. Organisation and Personnel. - During the initial stages of the District a nucleus of trained personnel was obtained from other Engineer Divisions and Districts, and the Civil Service Commission. Usually, the area fiscal duties, except those pertaining to budgeting, were performed by the Area Audit Groups. However, in the larger areas the finance and cost duties were handled by units separate and distinct from the audit group. The increasing volume of work resulted in several organisational changes and the number of fiscal personnel throughout the District increased from approximately 180 in the fall of 1943 to approximately 460 in the fall of 1945.



MANHATTAN DISTRICT HISTORY

BOOK I - GENERAL

VOLUME 5 - FISCAL PROCEDURES

SECTION 1 - INTRODUCTION

1-1. Purpose. - The purpose of fiscal procedures is to provide effective controls for the use of Government funds. These controls function to provide the information necessary to justify fund requirements, to provide the necessary budgetar, controls in respect to the use and administration of funds received, to as feguard the use of the funds through the performance of audit functions, and to maintain the fiscal accounting records necessary to compile reports required by higher authority.

1-2. Standard Procedures.

a. <u>Budget</u>. - The Budget and Accounting Act of 1921 (See App. D-1) places upon the President of the United States the duty of transmitting to Congress an annual budget, together with estimates of receipts, expenditures and other budgetary data. To aid the President in this duty, the same act created the Bureau of the Budget. Under rules prescribed by the President, the Dureau prepares for him the annual budget and such supplemental and deficiency estimates as he may from time to time recommend to Congress. Tentative estimates are prepared in the various agencies, reviewed by the Dureau of the Budget and shaped by the President into a comprehensive program for consideration of Congress. The Budget officers of the department and establishments of the Government furnish necessary data therefor to the Eureau. In the case of the Corps of Engineers, the



Engineers who transmits consolidated requirements to the Budget Officer of the War Department. During peacetime, the War Department is required to transmit its estimates to the Bureau of the Budget on 15 September of each year for the fiscal year beginning on the following 1 July. During wartime, estimates were submitted in such time as would permit Congress to make an orderly review of the estimates to insure passage before the beginning of the fiscal year covered by the estimates. These procedures are described in War Department Technical Manual 14-210. Typical implementation of these procedures is illustrated by 0. C. B. Circular Letter No. 2895, dated 18 January 1944, (See App. C-1). This circular called for an estimate of funds needed to cover obligations expected to be incurred in the Fiscal Year 1945, to be submitted to the Office, Chief of Engineers, not later than 31 January 1944.

b. Allocation of Funds. - Funds appropriated by Congress on the basis of the President's budget are apportioned by the Bureau of the Budget to the various departments. In the case of the War Department, the Secretary of War allocates the apportioned funds to the various agencies, who in turn allot the funds to the installations under their control.

c. Accounting. - Sec. 307 of the Budget and Accounting Act of 1921 (See App. D-1) authorises the Comptroller General to prescribe the forms, systems and procedures for administrative appropriation and fund accounting in the several departments and establishments of the Government. The application of the accounting procedures of the War Department is supervised and directed by the Accounts Division of the Office of the Fiscal Pirector, Army Service Forces, and constant liaison is maintained with the components of the War Department on matters of fiscal accounting.





Immediate supervision of fiscal accounting at field installations of the War Department is charged to the commanding generals of service commands with reference to Class I and Class II installations, to the Commanding General, Army Air Forces, with respect to Class III installations, and to the chiefs of the technical services with reference to Class IV installations.

d. Auditing. - The Audit Division, Office of the Fiscal Director, Army Service Forces, is charged with the responsibility of prescribing and supervising the audit procedures of the War Department. The chiefs of the various services, in turn, prescribe the procedures for the installations under their control. The audit manuals issued by the services are written to cover the procedures and problems applicable to the particular service, but all general policies and procedures are coordinated by the Office of the Fiscal Director in order that uniformity will prevail.

1-3. Special Considerations.

a. Effects of Security. - The tremendous importance of maintaining security in regard to the District's projects resulted in many limitations in connection with fiscal activities. Because information divulged to each individual was restricted to immediate needs, personnel preparing estimates were not capable of evaluating design and production changes. Further, because of the necessary restricted circulation of information, cost accounting personnel did not know the inter-relations of the various contracts, thereby precluding the keeping of costs by programs. Because of these two main effects of security, difficulty was necessarily experienced in the comparisons of actual and estimated costs. Security of





information also prohibited the payments of all contract reimbursement vouchers by disbursing officers of the Army outside the control of the District. This necessitated the use of an Engineer disbursing off cer in the District Office, under District control, for the purpose of classified disbursements.

b. Geographic Spread of Operations. - The wide geographic dispersion of the District increased the difficulty of preparing factual estimates because research, design and construction personnel had only limited centacts, thereby making it difficult to clarify questions or to pool information. This dispersion of activities also resulted in the necessity for some payments to be made by disbursing officers of the Army.



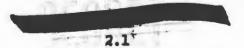


SECTION 2 - ESTINATES & BUDGETS

2-1. Early Estimates. - The field of cost estimates increased as the program developed. Early estimates were of necessity confined to a compilation of rough guesses covering only features definitely anticipated at the time. This condition was due to the fact that scientific development had not progressed to the point where requirements for meeting production objectives could be predicted, and it was impossible to foresee developments. In the early months of the project (prior to March 1943) no standard procedure for obtaining estimates was followed because of the lack of basic estimate data and rapidly changing plans. When a need for an estimate arose, for example to answer an inquiry of higher authority, 'or to use in shaping the future of the program, the officers acquainted with the various features of work obtained the best available data from those concerned, and furnished the figures to the District Engineer for compilation. Although comparative estimates of various plans were made from time to time for guidance in making decisions immediately required, the status of research and development work made it impossible to set any definite limits to the scope of work which the national interest would require. Funds already available to the War Department were, therefore, requested on an "as required" basis. (See App. C-2 for example).

2-2. Monthly Estimates.

a. <u>Field Estimates</u>. - As engineering designs developed, it become more feasible to prepare construction estimates in the usual manner, based on material take-offs and unit prices, and to formulate operating estimates on the basis of anticipated personnel and material





needs. Beginning Merch 1943, construction estimates were obtained monthly through the medium of Field Progress Reports (see App. D-2) submitted by Construction Officers. Operators' estimates were obtained from time to time, roughly quarterly, at such intervals as program changes, weighed against the diversion of effort involved, were considered to warrant a re-estimate.

b. Consolidated Estimates .- The latest construction and operation estimates were coordinated and compiled each month to give a total district estimate. When actual operations began, (early 1944), monthly Operations Reports (see App. D-3) were submitted which gave estimates to 30 June 1945, and these were used in preparing the monthly district estimates. The breakdown was by program (Y-12, K-25, etc), further broken down into contracts and segregated into capital and operating costs. The first estimate in which all the basic projects were included (Y-12, K-25, X-10, P-9, Y and Special Materials Plants) was prepared in March 1943. As activities were added, and the scope of operations increased, the monthly estimates rose almost continuously. Appendix A-1 shows the estimate total from March 1943 to January 1947, by months. Amounts shown are the current estimates for work definitely planned at the time of the estimate. Capital costs include engineering, design, and construction costs, and also basic research and development to 30 June 1945. Operating (continuing type) costs included special material production, preliminary and actual product plant operation. It will be noted that estimates for operating costs for additional six





months period were added in the report of 31 May 1943, 31 March 1944,
31 July 1944, and estimated costs for an additional year's operation
and for the post war plant cost were added in the report for 31

December 1945. The detailed estimates from which these totals were
taken are in the Reports and Statistics Section files under the heading,
"Monthly Budget Statements". In June 1944, a monthly analysis of the
change in estimates was initiated and kept current until shortly after
the cessation of hostilities when the unpredictable war time program
modifications, which caused major changes in fund requirements, would
no longer be expected. These analyses are entered in the Report &
Statistics files under the heading, "Review of Changes in Project
Estimates". A summary of the project estimate as of 31 December 1945
is attached, (see App. B-1). A graph showing monthly expenditures is
also attached, (see App. A-2).

- 2-3. <u>Budgets</u>. The first tentative annual budget was prepared by the Manhattan District in December 1944, covering anticipated costs for the Fiscal Year 1946, (see App. C-3). An annual budget had not been prepared in prior years for three reasons:
- a. Because of the experimental nature of the project, basic decisions concerning the scope of the project could not be formulated for the necessary eighteen months in advance.
- b. Security required that the scope of the project, as would have been revealed by a large annual budget, be concealed as far as possible from mar Department personnel, and even from the Congress. A select group from Congress was kept advised of plans for the District.





c. Authority had been received by the Chief of Engineers, permitting the Manhattan District to incur obligations in excess of available funds, thus reducing fund requirements to cover actual expenditures, (see App. D-4).

In lieu of the customary annual budget procedure, fund requirements were reviewed from time to time, and arrangements were made to provide necessary allotments to cover expenditures, (see App. C-2 for example). These allotments were made from funds available to the War Department. On 3 February 1945, the first annual budget, in the amount of 792 millions (for fiscal year 1946), was transmitted to Colonel LaCroix of the Office, Chief of Engineers by General Groves, (see App. C-3). This budget was based on the monthly estimate as of 31 December 1944 and detailed backup for the figure may be found in the Reports and Statistics file under the heading "Fund Requirements, F. Y. 1946." Reasonable contingency allowances were included to provide for the still unpredictable changes in the nature and scope of operations. The amount of 792 millions was later increased to 392 millions, (see App. C-4), to allow for the authorization of the K-27 Project and increased estimates for K-25. The revised total was predicted on total allotments of 1950 million dollars to 30 June 1945, (see App. C-5), with the understanding that allotment of a portion of the 1950 could be deferred and added to the 892 if preferred by higher authority. Actual allotments to 30 June 1945 were 1878 millions. The subsequent surrender of Japan permitted a substantial curtailment of fund requirements, and only 568 millions were actually allotted during the fiscal year 1946, bringing the total of funds allotted to 2,446 millions. Funds in the amount of 397 millions were requested for the



fiscal year 1947 backup for which was prepared in estimate form and copy of which may be found in the Reports and Statistics file under the heading "Fund Requirements, F. I. 1947". The Bureau of the Budget reduced this requirement to 200 millions in submitting the President's annual budget (war supplement) to Congress. This was the first time a separate budget was prepared for Manhattan Project functions and it was entitled Atomic Service War Department. Funds heretofore requested from Congress for this purpose had been hidden under War Department titles and had been defended before Congress in off-the-record hearings. General Groves accompanied by Colonel D. E. Antes defended the proposed Atomic Service Appropriation for F. Y. 1947 before a sub-committee of the House of Representatives Committee on Appropriations on 31 May 1946. A transcript of the recorded hearing may be found in the Reports and Statistics file under the heading "Appropriation Hearings." A bill was subsequently reported out on the floor of the House, which would appropriate the sum of three-hundred and seventy-five million dollars for Atomic Service for the fiscal year ending June 30, 1947. This bill was enacted into Public Law 515. On July 25, 1946, the War Department Budget Office addressed a letter to the Commanding General, Manhattan Project, requiring that a budget for the fiscal year 1948 be prepared and submitted to his office by September 14, 1946. A budget in the amount of five-hundred and seven million dollars was submitted to and approved by the War Department. Meanwhile, Public Law 585, establishing the Atomic Energy Commission as successor to the Manhattan Project, was





enacted and the War Department deleted that portion of their 1948 budget request dealing with Atomic Services. Prior to December 31, 1946, two-hundred and thirty million dollars had been allotted to the Manhattan Project of the three-hundred and seventy-five million dollars appropriated by Congress for the fiscal year 1947. However, one-hundred and fifteen million dollars of this amount was revoked of which forty million dollars was retained by the Office, Chief of Engineers, and eighty-five million dollars was transferred to the Atomic Energy Commission by Executive allocation on December 31, 1946. Two-hundred and fifty million dollars of the funds allotted in the fiscal year 1946 were also revoked and transferred to the Atomic Energy Commission. As of December 31, 1946, the net allotment to the Manhattan Project totaled two-billion-three-hundred and eleven million dollars.





3-1. General.

- a. District Audit Objectives. The objective of the audit of War Department cost-plus-fixed-fee contracts is to ascertain that the contractor's invoices, certified by him as being true and correct, are in accordance with the provisions of the contract and are substantiated by accounting records and other supporting evidence. A complete and detailed examination of all transactions is not imperative to achieve this objective. An adequate and more practical method is the selection of a representative section of the contractor's transactions and procedures for detailed audit. While this procedure is a deviation from the basic philosophy of ebecking in detail every item of the contractor's costs, the large volume of contracts to be audited by the War Department and the limited supply of competent manpower makes this modification of standard procedure imperative. This selective audit was the basic applied theory of Manhattan District audit. In general, the "Manual for Administrative Audit of Cost-Plus-A-Fixed-Fee Construction Contracts," issued by the Corps of Engineers and TH 14-1000, issued by the War Department, were the basic manuals governing District procedures of audit, (See App. D-5 and D-6).
- b. <u>Contractors' Internal Control</u>. Where the contractor maintains a satisfactory system of internal control, under which all expenditures on behalf of the contract are sudited for his own protection by his own organization, the interests of the Government can be protected, without duplicating the work performed by the contractor, by the use of a flexible selective audit performed by a relatively small number





control requires the separation of activities and responsibilities within the contractor's organisation, together with applied accounting controls,
in order that every important phase of the transactions may be subject to
a cross-check. Such a system minimizes the possibility of errors and justifies the departure from rigid and detailed procedures of audit. The
adoption of the selective audit procedure does not reduce in any way the
necessity of a review of dominants and schedules in support of all outhers
submitted for reimbursement b the contractor. However, by the elimination
of unproductive detailed checking, more time is evailable for such review
by the Government auditor.

c. Extent of Selective Audit. - In order that the extent of the selective audit procedure may be determined for any particular contract, the contractor's system of internal control is first reviewed by the Government auditor to whom the audit responsibility for the contract has been assigned. An outline is then prepared which shows the scope and adequacy of the contractor's internal control. If the controls are not adequate, and if it is practicable to correct the deficiencies, the contractor is required to do so. Upon approval of the system of internal control, the extent to which selective audit procedures are to be applied is determined. In the case of certain classes of expenditures by the contractor, where ordinarily no question as to their allowability from a technical standpoint exists, the audit problem is to substantiate the authenticity and mathematical accuracy of such expenditures. Where the volume of individual transactions of these classes of expenditures is considerabl, the slective method of auditing may be properly applied. Certain other expenditures,





more doubtful for allowability, are subjected to a more extensive review and in many cases are given a complete and detailed examination.

- d. Application of Selective Audit. In carrying out a selective method of audit throughout the District, a fixed and continuing pattern of procedure was carefully avoided and the scope and extent of the audit program periodically revised. While the policy of the District was to place emphasis on the examination of the larger classes of transactions, a representative group of all classes of the contractors' transactions was also selected. In this way, an audit of a relatively small number of transactions covered the greater part of the dollar total of such transactions. When the review of the internal control procedures discloses' that certain phases of the transactions were not entirely adequate, a more extensive audit was effected, and similarly where the selective audit procedure disclosed numerous errors, a complete detailed check was made of that phase of the contractor's accounts.
- e. Results of Selective Audit. Existing conditions
 determine the necessity for expansion of any particular audit program.
 The contractors' system of accounting and internal control was periodically checked to insure that it adequately protected the interests of the
 Government, and the audit was projected far enough to establish the
 credibility of the accounting records and data supporting reimbursements
 to the contractor. Selective auditing, in those cases where there are
 satisfactory internal controls, not only reduced the cost of auditing and
 resulted in more satisfactory audits, but accelerated reimbursement to
 cost-plus-fixed-fee contractors of the District.
 - f. Research Contract Audit different procedure was



manuals require detailed supporting documentation, and because the work being performed by research contractors did not lend itself to these detailed procedures, it was considered advisable to apply different standards of audit to these contracts. A procedure known as the "O. S. R. D. Procedure" due to its inauguration by and approval for the Office of Scientific Research and Development was, therefore, placed into effect after being discussed with and verbally approved by the Chief, Audit Division, G. A. O. This procedure, in general, permitted the retention of supporting documents by the contractor rather than their use in support of reimbursement vouchers, and established reimbursement through the use of certificates rather than by documents (See App. C-6).

3.2. Youcher Procedures.

a. General. - The voucher procedures of the District follow the finance series of Army Regulations and Mar Department Technical Manual 14-504 (See App. D-7). In general, the contractor prepared his reimbursement vouchers within his own organisation, audited such vouchers for allowability under his contract and for adequacy of documentary support, and certified to the justness and correctness of his claim. The reimbursement vouchers were then submitted by the contractor to the Government auditor to whom the audit responsibility for the contract had been assigned. The auditor selected a representative cross-section of the claim for selective audit in accordance with the principles outlined in paragraph 3-1. The voucher was then approved by the auditor, or returned to the contractor if errors were found. If the voucher was approved, the auditor submitted the



claim to the appropriate contracting officer for certifications. The voucher was then submitted in the usual manner to District headquarters for payment. The voucher, after receipt at District headquarters, was reviewed by the District audit staff prior to presentation for payment. This audit consisted of a check of the major items, such as certifications, correctness of form, correctness of fiscal accounting data, etc., and the maintenance of the necessary records in connection with the flow of such vouchers. The "Off-Area Audit Group" of the District audit staff which performed this final review was not charged with the audit responsibility of the contracts for which it reviewed reimbursement vouchers. In this way, an independent check was performed by auditors who were in a position to note questionable items which may not have been apparent to the responsible auditor who was in daily contact with claims under the contractual terms. This system of doublecheck eliminated many questions which might otherwise have been raised by other accounting agencies of the Government, and was, therefore, to the best interests of both the Government and the contractor. Flow-Chart of this system is attached as App. A-3.

b. <u>Preparation of Reimbursement Vouchers</u>. - The preparation of the contract reimbursement vouchers varied with the type of contract and the degree of security necessary for application to each type. All vouchers of the District were classified into one of six groups as follows:

Group 1 - contained only wouchers pertaining to certain University and College contracts, regardless of the type or classification of the contract;

Group 2 - contained vouchage pertaining to contractors

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whose affiliations with the District, if known, would be detrimental to the District security program, exclusive of Group 1 contracts, and regardless of type or classification of the contract;

Group 3- contained vouchers pertaining to Cost-Plus-A-Fixed-Fee, Cost-Plus-Overhead, and Cost-Plus-Allowance contracts regardless of their classification, together with classified contracts regardless of their type, exclusive of Group 1 and Group 2 vouchers;

Group & - contained vouchers pertaining to unclassified contracts, exclusive of Group 1, Group 2, and Group 3 vouchers;

Group 5 - contained only vouchers pertaining to travel of Eilitary and Civilian Personnel. Group 5-A contained only unclassified travel vouchers; Group 5-B contained only classified travel vouchers;

Group 6 - contained only Standard Form 1060 (Voucher for Adjustments between Appropriations and/or Funds). Group 6-A contained only unclassified 1080's; Group 6-B contained only classified 1080's.

c. Necessity for Youcher Preparation Procedures. - These groupings were necessary for two reasons. First, it was believed that a serious security breach might result from a continuation of the practice of submitting vouchers for payment to the Finance Officer, U. S. Army, Knoxville, Tennessee, instituted upon the decentralization of disbursing procedures (See par. 5-2a). While such vouchers were unclassified, the names of some contractors were nationally known in various fields of scientific research, and the revelation of a connection between such contractors and District activities might be detrimental to security.

Second, attainment of successful results from the activities of the General Accounting Office Project Audit Group at Oak Ridge made it





imperative that reimbursement vouchers be placed in the possession of this Audit Group as soon after approval as possible. These two purposes were adequately served by using the Engineer Disbursing Officer in the District beedquarters for payment of vouchers containing information detrimental to security, and by establishing new District regulations relative to voucher preparation. (See App.C-6 and C-7).

d. Primery Results of Voucher Preparation Procedures. -The establishment of Groups 1, 2, 5-B and 6-B, which included all vouchers of a compromising nature, and the classification of all vouchers within Groups 1 and 2 as mandatory "Secret" vouchers, made payment in the District headquarters necessary. In this way the compromising vouchers were at all times within the security surveillance of the District, and could be surrendered to the General Accounting Office Project Audit Group at Oak Ridge immediately after payment. The establishment of Group 3 to include all vouchers to be audited by the General Accounting Office Project Audit Group, with the exception of Groups 1 and 2 vouchers, permitted the insertion of a "General Accounting Office Advance Copy" in the voucher. This "Advance Copy" was returned by the Finance Officer, U. S. Army, Knoxville, Tennessee, immediately after payment, to the General Accounting Office Project Audit Group at Oak Ridge. Inasmuch as all documents supporting the reimbursement vouchers were detached from the voucher before submission to the Finance Officer, U. S. Army, Enoxville, Tennessee, for payment, (see Group 3 woucher preparation chart in Appendix C-7), this "Advance Copy" of the paid voucher could be matched by the Project Audit Group and the audit by the General Accounting Office started. This procedure resulted in all



data being available for General Accounting Office audit purposes in, generally, two days from date of payment, whereas to have awaited the return of the original paid voucher for audit would have resulted in delays warying from two to four months.

- The grouping of all contract reimbursement vouchers, although established primarily for security purposes, also resulted in increasing disbursements by the Finance Officer, U. S. Army, Enoxville, Tennessee, inasmuch as the Group 8 and Group 4 classifications (i.e. those contract groups paid by the Army Finance Officer) contained 84 percent of the contracts of the District. This was highly desirable, since it permitted the maintenance of only a minimum staff of District Office Finance employees in the District Headquarters.
- be noted from the flow-chart of vouchers (see App. A-5) that only classified vouchers were submitted by the Hanford Engineer Works to the District headquarters for payment. This was in accordance with instructions issued 24 March 1944, (see App. D-8). Because of the great distances involved, and the resultant time interval for submission of reimbursement vouchers across the continent, payment of unclassified vouchers originating at the Hanford Engineer Works were submitted to the Finance Officer, U. S. Army, Vancouver Barracks, Mashington. Inasmuch as no Group 1 or Group 2 contracts were in existence, all contracts at this site were codified Group 5 or Group 4. Therefore, security could be adequately preserved and payments to contractors accelerated by the use of this modified procedure. If and when the necessity for Group 1 and Group 2 payments arose, such payments were to be made by the Engineer Disbursing Officer in the





District Headquarters.

3-3. Audit of Advance Payments to Contractors.

- a. General. It is the policy of the Chief of Engineers to decentralize the authority for making advance payments, together with the administration thereof, to Contracting Officers. Each Contracting Officer is responsible for the maintenance of proper accounting records, the somputation of interest where applicable, the preparation of the required financial reports, and the periodic audit of the contractors' accounting records. This last responsibility must be exercised not less frequently than once each six months, and has as its objectives: (1) a determination that deposits are made in accordance with the advance payment agreement, (2) an assurance that the funds in the advance payment account are being used, or have been used, for the purpose intended and for which the advance was authorised, (3) an assurance that the rate of disbursement from the special deposit account set up under the advance payment agreement is not excessive, and (4) a determination that no conditions exist, either with respect to the financial condition of the contractor or the manner in which the advances are disbursed or used, which adversely affect the best interests of the Government, or which in any way might affect the efficient and expeditious completion of the contract.
- b. Report Required. Standard procedure requires that a report be submitted after each audit. This report is narrative in form, and is supported by pertinent schedules. This report also contains a signed statement by the contractor which includes the following datas (1) contract number and date, (2) type of contractor, (3) authorized amount of advance payments, (4) amount of advance payments received, (5) amount of advance payments liquidated, and (6) amount of advance payments outstanding.





It was believed that to have released this report to higher authority would have been detrimental to the strict security of the District. Accordingly, by letter dated 26 October 1944, (see App. D-9), the Chief of Engineers was requested to grant an exemption for the submission of this report with the stipulation that audit reports pertaining to advance payments would be maintained by the District. This exception was granted on 31 October 1944, (see App. D-10).

3-4. Relations with the General Accounting Office.

- a. Statement of Policy. The War Department recognises that the General Accounting Office is charged with an independent post audit of public fund disbursements under the Budget and Accounting Act, (42 Stat. 20) (see App. D-1). The Department actively follows the policy of assisting the General Accounting Office in every way practicable in making the kind of audit it considers necessary and in the way it deems most appropriate. The General Accounting Office in turn recognises that the War Department authorities are responsible for the administrative audit of cost-plus-fixed-fee contracts, and it is the expressed intent of that office to cause the minimum interference with War Department auditors and the work of the contractors.
- b. Distribution of Vouchers to the General Accounting Office.

 From the inception of the District until 1 April 1943, paid original vouchers were surrendered to the Chief of Finance, U. S. Army, for subsequent delivery to the Washington Office of the General Accounting Office.

 On 1 April 1943, the War Department decentralized its accounting functions to four regional accounting offices established at New York, N. Y.,

 Atlanta, Georgia, Chicago, Illinois, and Los Angeles, California. During the period 1 April to 1 September 1943, all paid original vouchers were





surrendered to the Army Regional Accounting Office at New York, N. Y., which in turn periodically forwarded such vouchers to the General Accounting Office. Because of the change in District headquarters in the month of August 1943 from New York to Oak Ridge, Tennessee, subsequent vouchers were submitted after payment to the Army Regional Accounting Office in Atlanta, Georgia,

c. Establishment of Project Audit Groups for District. It was realised that accumulations of paid vouchers at locations outside the control of the District might seriously impair the security of the program, and action was taken during the closing months of 1943 to effect a more stringent control over paid vouchers. These efforts led to discussions with the staff of the Fiscal Director, U. S. Army, and members of the General Accounting Office, and culminated in approval for the establishment of two General Accounting Office Project Audit Groups for the District. / (See Faragraph 5-2c). These Project Audit Groups were established at the District Headquarters in Oak Ridge, Tennessee, and at the Hanford Engineer Works in Richland, Washington. The paid vouchers previously referred to were transferred from the General Accounting Office in Washington, D. C., to the Project Audit Group to which they pertained. The classified contracts of the District, some of which were in the Washington office of the General Accounting Office were redistributed in a like manner. Necessary wault storage space was furnished the General accounting Office at each site in order to meet the security requirements of the District. As a result of the foregoing, the paid vouchers and contracts were placed in the custody of the General Accounting Office as required by the Budget and Accounting Act, and the necessary security so vital to the operations of the District was maintained.





- d. Scope of General Accounting Office Project Audit. The security of the District determined, to a great extent, the scope of the Project Audits performed by the General Accounting Office. With the exception of vouchers originating at or pertaining to the Hanford Engineer Works, the Oak Ridge Project Audit Group performed the audit of all paid reimbursement vouchers pertaining to Secret, Confidential, and Restricted contracts of the District regardless of the classification of such vouchers, together with all Secret and Confidential paid vouchers regardless of the type of such vouchers. In this manner every paid voucher which in itself was detrimental to security or which referred to classified contracts was capable of retention within the security surveillance of the District.
- General Accounting Office auditors arrived at Oak Ridge for preliminary discussions in January 1944. At this time the District, seeing the need for the centralisation of contacts between the General Accounting Office and the District, established a District General Accounting Office Liaison Officer. This officer was charged initially with the promulgation of procedures between the District and the General Accounting Office, and later with the receipt, distribution and clearance of all General Accounting Office Informal Inquiries, Formal Notices of Exception, (Std. Form Bo. 1100), and similar requests originating with the Oak Ridge Group. The Chief Project Auditor at the Hanford Engineer Works acted in a similar capacity for the Hanford Engineer Works Group. In February 1944, the General Accounting Office assigned a resident Chief Cost Auditor to each Audit Group, and as quickly as possible assigned auditors to each Group. The Oak Ridge Group consisted of twenty suditors, while the Hanford





Engineer Works Group totaled ten auditors.

- of the District, the names of many materials and other items had to be reduced to code. This imposed on the General Accounting Office a task not normally encountered in its audit. Problems of this kind were referred to the District Engineer or his Executive Officers, in the case of the Oak Ridge Group, or to the Area Engineer in the case of the Hanford Engineer Works Group. In some cases, the questions raised by the General Accounting Office could not be answered because of security. By verbal agreement in each case, the General Accounting Office has deferred such questions until the need for security no longer exists.
- g. Deviations from Standardized Procedures. Two major deviations from standardized procedures were necessary in connection with District relations with the General Accounting Office. These deviations related to (1) documentation and classification of all District reimbursement vouchers, and (2) methods of procedure for handling Formal Notices of Exception and related reclaim vouchers. Each is briefly discussed below:
- Vouchers. Because of District security regulations, it was considered inadvisable to submit to the paying Finance Officers vouchers for reimbursement which contained all documentary evidence supporting such reimbursement. To have done this would have resulted in an accumulation of paid vouchers, the undesirability of which has already been discussed. The normal project audit procedures of the General Accounting Office were likewise considered undesirable, inasmuch as the original paid





vouchers, though unsupported and containing no documentation, would be forwarded to the Washington Office of the General Accounting Office, thereby affording an opportunity to persons not under District control to gain knowledge of the scope and volume of disbursements of the District. A modified procedure was, therefore, adopted which permitted the supporting documents to be removed from the approved vouchers prior to payment and surrendered to the General Accounting Office Project Audit Groups (see App. C-7). The paying Finance Officer made payment of the voucher on the basis of the normal certification appearing on the voucher executed by an authorized Certifying Officer. Arrangements were made with the appropriate Army Audit Branches of the General Accounting Office, to return all paid original vouchers to the Project Audit Groups. By the use of this procedure, security was adequately protected and the speed of the General Accounting Office audit hastened.

(2) Methods of Procedures for Formal Notices of Exception and Related Reclaim Vouchers. In order that War Department contracts at time of termination might be as current as possible, the Under Secretary of War, on 6 December 1944, (see App. D-11), directed that upon receipt of a Formal Notice of Exception from the General Accounting Office, the excepted amount should be immediately collected by deduction from current claims of the contractor. Because the District had many contracts which provided for (a) reimbursement of costs without fixed fee, (b) reimbursements of costs with a fixed fee of \$1, and (c) reimbursement of costs with an indemnifying guaranty, it was felt that immediate deductions of amounts excepted by the General Accounting Office under these types of contracts would not be proper. Accordingly, the District requested, by letter dated





8 January 1945 to the Fiscal Director, U. S. Army, who had been charged by the Under Secretary of Mar with the issuance of instructions necessary to secure the desired results, an exemption to cover excepted amounts under these types of contracts, (see App. D-12). This waiver was approved on 1 February 1945, (see App. D-13) and incorporated into the District methods of procedure. The procedure of immediate deduction set out by the Fiscal Director in Finance Bulletin, No. 105, 16 December 1944, (see App. D-14), was effected for all other amounts excepted by the General Accounting Office on Formal Motices of Exception. When the contractor believed that a deduction, because of General Accounting Office sudit action, was erroneous, a reclaim voucher was submitted. All such reclaim vouchers, for security reasons, were submitted to the General Accounting Office, Liaison Officer and transmitted to the Comptroller General for advance decision by the Engineer Disbursing Officer in the District headquarters, (see App. C-8).





SECTION 4 - FINANCE

4.1. General

a. Procedures. - The Finance procedures used by the Manhattan District were those prescribed by the Office of the Fiscal Director, Army Service Forces and by the Office, Chief of Engineers, for use at field installations. The District finance procedures can be divided into two general parts, namely, accounting and vouchering. The Accounting system was originally established in accordance with the Finance and Accounting Manual for Military Funds issued by the Chief of Engineers, (see App. D-15). Changes in the system were made from time to time as new instructions were issued by the agencies referred to above. The system provided sufficient accounting records of the receipt, obligation, expenditure and collection of appropriated funds and was designed so as to make accounting information available at short notice. The voucher procedures discussed in this section pertain to travel and commercial accounts and are those prescribed by the Finance Department series of Army Regulations and by the Mar Department Technical Manuals 14-503, (see App. D-16), 14-504 (see App. D-7), and 14-507 (see App. D-17).

b. Effect of Procedures. These finance procedures provided effective controls over the use of appropriated funds and facilitated the preparation of financial reports for District administrative purposes and for the information of higher authority. The data contained in the reports were utilized by the District office in holding fund requirements to a desired minimum, in effecting prompt payments and collections, and in measuring the efficiency and effectiveness of operations and adminis-





tration generally. Such utilization was particularly necessary to this office because of the geographic spread of operations and the varied nature of those operations.

4.2. Accounting Procedures.

a. Allotments.

- (1) Receipt of Allotments and Advice to Field.

 Allotments of funds for construction and operation were made by the Chief of Engineers. These allotments were immediately entered in the District ledgers and the area offices notified of the appropriation symbol, allotment designation, project account, object classification, and of the limitations on the use of the funds.
- (2) Application of Allotment Date. The allotment information was issued by the District Office and by the areas in the preparation of contracts, purchase orders, requisitions, payment vouchers, and, in certain instances, transportation requests and Government bills of lading. Similar information regarding the open allotments for officers' pay and allowances, enlisted men's pay and allowances, ration allowances, and travel and transportation, was transmitted to the area offices immediately upon receipt in the District office. These data were used in the preparation of officers' pay venchers, enlisted men's payrolls, travel orders, transportation requests and bills of lading. The open allotments were those prescribed by the War Department (see App. D-18) for expenditure without limitation as to amount, provided the expenditures were of the nature specified in the instructions relating to the use of the respective accounts.
 - (3) Allotments for Special Purposes. Funds for





civilian medical attention of military personnel were allotted by the Surgeon General. Funds for the alterations of clothing of enlisted women, funds for the welfare of enlisted personnel, and fiscal year 1946 funds for communication services at the Clinton Engineer Norks were furnished by the Commanding General, Fourth Service Command.

These funds have been administered directly by the District office and all vouchers charging these funds were prepared at District headquarters. These allotments were made quarterly in accordance with estimate submitted.

(4) Fiscal Year Totals. - The total amount of funds allotted during each fiscal year is as follows:

Fiscal Year 1945	\$ 885,000,000.00
Fiscal Year 1944	422,933,896.70
Fiscal Year 1945	1,069,929,509.74
Fiscal Year 1946	567,658,130.60
Fiscal Year 1947 (to 31 December 1946)	-184,976,911.69
Total to 81 December 1946	\$2,310,544,125.35

The minus total for allotments during fiscal year 1947 is due to revocations of unexpended balances of District funds for the purpose of providing funds for the U. S. Atomic Energy Commission. A detailed list of all allotments and revocations is attached as Appendix B-2.

b. Obligations.

(1) Accounting Procedure. - The term "Obligations" as used in finance procedure can be defined as the amounts of contracts awarded, orders placed, or services received, or the amount of any other transaction which legally reserves an appropriation or fund for expenditure. All originating units in the District office forwarded a copy of each obligation document to the Finance Section for posting to the accounts. Until April



1944, the procedure for the area offices was identical with that of the District effice. All documents necessary for the maintenance of obligation records were transmitted to the District office for recording in detail. These obligations were liquidated by means of expenditure vouchers sent by the areas to the District office for payment. The only changes in the procedure occurred in April 1944 and July 1946 when the Hanford Engineer Works and Santa Fe Area, respectively, were authorised to keep independent finance records and to transmit monthly reports to the District office for consolidation (see App. D-8). All obligations on the District ledgers pertaining to Hanford and Santa Fe were transferred to the area accounts.

over-obligate funds was recognized during the early planning for the project. A letter dated 15 June 1942 addressed to Hon. H. A. Wallace, Vice President of the United States, Hon. Henry L. Stimson, Secretary of War, and Gen. Geo. C. Marshall, Chief of Staff, by Dr. J. B. Conant, Chairman HDRC, and Dr. V. Bush, Director, OSHD, and outlining a general program for the production of Atomic Fission Bombs included the following: "In order to avoid delay and/or suspension of the work on any phase of these projects. . . . the Chief of Engineers should be authorised to make expenditures from or over-obligate any funds under his control with the understanding that he will be reimbursed for such expenditures at a later date." This program was approved by the above mentioned addressees. In letter of 17 June 1942, the approval of the President of the United States was also solicited by Dr. V. Bush, and it too was granted. Photostatic copies of these letters were filed in the Office of the



District Engineer, (see App. D-4).

c. Expenditures.

(1) Accounting Procedures. - The expenditure records were maintained by posting the totals of vouchers paid by the various disbursing officers. Under the centralised accounting control system used by the Manhattan District during the period August 1945-March 1944, all documents necessary for the proper recording of expenditures were sent by the areas to the District Office. Because of security restrictions, all vouchers covering the expenditure of District funds were sent by the areas to the disbursing officer in the District office for payment. Therefore, detailed records of expenditures could be kept without undue difficulty. Because of the installation of the General Accounting Office Field Units (see Par. 3-4c) and the resultant revision in voucher procedure, certain changes in the accounting procedure were made as of 1 April 1944. Hanford Engineer Works was authorised by the District office on 24 March 1944 to send payment vouchers to the Finance Officer, U. S. Army, Vancouver Barracks, Washington, and to maintain separate accounting records (see App. D-8). Monthly reports of expenditures were submitted by Hanford to the District Office for consolidation with the controlling records. Although no General Accounting Office Field Unit was established at Santa Fe, that office was authorised by the District office on 27 March 1944 to send unclassified vouchers to the Finance Officer, U. S. Army, Fort Bliss, Texas, and to transmit copies of paid vouchers to the District office for accounting purposes (see App. D-19). In order that the consolidated expenditure report to higher authority would contain all expenditures, arrange-



ments were made whereby Santa Fe would notify the District office by teletype of the dollar amount of all vouchers approved and forwarded to the Finance Officer for which no paid copies had been received. On July 1, 1946 the Santa Fe Area was completely decentralized insofar as the submission of vouchers was concerned. A Finance Officer. U. S. Army, was established at Santa Fe, New Mexico and all payments both classified and unclassified were processed by the Santa Fe area through the local Finance Officer. Separate accounting records were maintained at Santa Fe and monthly report submitted to the District Office for consolidation with the controlling records. Effective May 15 and 20, 1944 payrolls for graded and ungraded employees respectively, on duty in the New York Metropolitan region, were processed for payment through the Finance Office, U. S. Army, New York, New York. Expenditures were maintained by the District Office Finance Section as recorded from fiscal copy of payroll voucher furnished by the New York Finance Office. All other areas continued to send their vouchers to the District office for processing, but because of the revised voucher procedure, the majority of such vouchers were forwarded to the Finance Officer, U. S. Army, Knoxville, Tennessee, (Subsequently moved to Oak Ridge) for payment. The use of other finance officers brought about the necessity for the establishment of additional controls in the District office to insure that all vouchers were recorded in the finance accounts. During the period 1 August 1942--31 December 1946 a total of 207.834 expenditure vouchers were processed through the expenditure accounts of the District. A chart indicating the flow of all different types of expenditure wouchers is attached as Appendix A-4.

(2) Reports - Monthly reports of obligations and expenditures





pertaining to construction and operation allotments were prepared for submission to the Chief of Engineers. Since the amounts contained in these reports were considered classified information, the reports make no reference to the Manhattan District and were transmitted in plain envelopes. This method of reporting was requested by the Fiscal Branch, Office, Chief of Engineers, in order to facilitate the handling of the reports in that office (see App. D-20). Reports of obligations and expenditures in connection with allotments received from the Surgeon General and the Fourth Service Command were submitted monthly to the agencies concerned in accordance with fiscal instructions contained in War Department Technical Manual 14-702 (see App. D-21).

- (5) Monthly Expenditures. A tabulation of the total net expenditures by months from 1 July 1942 to 51 December 1946 and the unexpended balance of allotments as of 51 December 1946 is attached as Appendix B-8.
- expenditure accounts, a consolidated record of advance payments to contractors was maintained by contracts and allotments in accordance with War Department Technical Manual 14-702 (see App. D-21). A constant check was made of outstanding advances and all area engineers and operations chiefs were requested to keep the balances in the hands of their contractors at a minimum. Because of the secret nature of the contracts, contractors were encouraged to accept advance payments from the District rather than resort to other types of financing which would have required the revealing of certain information regarding the contracts to outside agencies. This, together with the fact that a number of the contracts provided for me fee



and were of necessity financed with Government funds, resulted in large amounts being advanced. As of 31 December 1946 \$333,554,367.39 had been advanced to contractors. Of this total \$308,897,481.03 had been recouped, leaving an outstanding balance of \$24,656,886.36 held under thirty-two contracts (see App. B-4).

e. Payments to other Government Agencies.

(1) Direct Financing by District. - Certain phases of the work performed under the Manhattan District program were financed by advances of funds to other Government agencies. The procedure established by AR 35-880 for making such advances provides for transmittal of the transfer voucher from the agency to receive the advance to the Chief of the Technical Service concerned. A copy of the agreement or other instrument covering the contemplated services and/or materials to be received must accompany the billing. After verification by the technical service fiscal efficer, the voucher is forwarded through the Fiscal Director, Army Service Forces, for payment by the Finance Officer, U. S. Army, Washington, D. C. Because of the fact that the advances made by the District to other agencies pertained to highly classified projects, it was absolutely essential to the security program that information pertaining to the advances should not be revealed to parties not directly concerned. Therefore, the vouchers from the billing agencies were transmitted direct to the Washington, D. C., headquarters of the District and were then dispatched to the Engineer Disbursing Officer at Oak Ridge, Tennessee, for payment. A tabulation of the advances made and the agencies concerned is attached as Appendix B-5.



- (2) Financing through the War Department. In addition to the funds directly advanced by the Engineer Disbursing Officer, funds were also transferred to other agencies by the War Department for the account of the District. (See App. B-6).
- 4-3. <u>Voucher Procedures</u>. The voucher procedures of the Finance
 Section pertain to travel accounts and commercial accounts. These types
 of accounts are discussed briefly below:

a. Travel Accounts.

(1) General. - Generally, all claims for reimbursement of travel expenses were made by the traveler and were presented to the Area office to which he is assigned. The Area office, either by the maintenance of a separate travel unit or by the inclusion of such unit under the supervision of the project auditor, prepared the traveler's claim on standard voucher forms. The District office travel unit performed this function for all District headquarters personnel and for five small areas, the sise of which do not make the establishment of a travel unit practicable. This procedure was necessary in order that claims could be correctly prepared and reimbursement to the traveler thereby accelerated. A small unit which is cognisant of all applicable rules and regulations regarding Government travel can receive claims and prepare vouchers in a manner acceptable to the disbursing officers much more efficiently than can each traveler, especially since the average traveler is not necessarily aware of the ramifications in this specialised field. The preparation of travel accounts in acceptable form minimises the return of vouchers from the disbursing officers and speeds payment. The activities of the District were county-wide and an extraordinary amount of travel was necessary for





efficient operation. Because of this volume and because of the recurring trips of many individuals prompt reimbursement was essential.

- (2) Audit of Travel Accounts. Classified and unclassified travel vouchers (see Groups 5-A & 5-B, Par. 3-2b) prepared by Area offices were submitted to the Travel Unit in the District office. Such vouchers were then thoroughly audited for allowability and correctness. This audit was two-fold in scope. First, the claim itself, made up of certifications, documentary support and amounts, was scrutinised in detail and any necessary additional information secured. Second, the District office was able to check the methods and procedures used by the areas and to institute immediate corrective measures where necessary.
- the travel accounts procedure discussed above were made in the case of Santa Fe Area and the Hanford Engineer Works. The Santa Fe Area submitted unclassified travel accounts to the Finance Officer, U. S. Army, Fort Bliss, Texas, for payment; the Hanford Engineer Works submitted unclassified travel accounts to the Finance Officer, Vancouver Barracks, Washington, for payment. These exceptions to District policy of centralised audit within the headquarters were made because of the great distances involved and the resultant time lag for the submission of travel accounts to Oak Ridge, Texassee, and in returning payment to the traveler.
- (4) Conformity with Regulations. In general, the Finance
 Department series of Army Regulations and the Technical Manuals issued by





the War Department were the basic regulations used by the Manhattan District in the preparation and audit of travel accounts. In addition, the Standardised Government Travel Regulations as approved by the President of the United States, and as amended, were used for the travel of civilian personnel (see App. D-22). Certain deviations from the standard precedures prescribed by the above publications were necessary in order that the operations of the District could proceed without hindrance. Two major deviations were made and these are discussed briefly below:

(a) Standardised Government Travel Regulations prescribe that
"accounts must be rendered currently for each trip of less than two
months duration or for the period ending with the month following the
beginning of the travel, or for the period beginning with the month preceding the completion of the travel, but not more frequently than
monthly, by calendar month." To have complied with this portion of the
regulations, particularly during the early stages of the District, would
have seriously handicapped the travelers in the lower salary brackets.
Because only a limited amount of trained personnel was available, such
personnel were required to perform extensive travel between widely
separated operational sites of the District. This resulted in the
necessity for prompt and more frequent reimbursement than provided for
by the above quoted regulation. During the process of audit of District
travel vouchers, the General Accounting Office, Washington, D. C., noted
the fact that more than one voucher was being submitted by travelers dur-





ing an accounting period and by letter dated 26 April 1945, brought the breach of regulations to the attention of the Fiscal Director, Army Service Forces, Washington, D. C. (see App. D-25). In May 1945 the policy of submitting travel claims more frequently than monthly was amended. This amendment provided that all employees of the District whose salary classifications were in excess of \$2500 per annum would render claims for travel performed only once each month unless a showing of personal hardship could be made. Employees whose salary classifications were less than \$2500 per annum would continue to submit travel claims at the conclusion of each trip in order that personal hardship might be avoided.

(b) Army Regulations 55-120 prescribed that travel orders issued to Military and Civilian Personnel of the War Department Whose travel is to be performed by commercial aircraft shall, if such travel is necessary to accomplish an emergency war mission and requires the use of a priority to insure a seat in a commercial aircraft, direct the use of commercial aircraft between such specific points as may be necessary. A copy of travel orders, directing travel by commercial aircraft, was surrendered to the commercial airline by the traveler as the basis for air priority. This travel order was in turn filed with the Regional Air Priorities Board of the Air Transportation Command, A.A.F. It was believed that a breach of security could result from this procedure of surrendering copies of travel orders to the commercial airline, inasmuch as the points on the travelers itinerary would be shown, and thereby indicate the scope of activities of the District. In accordance with telephonic instructions from the Office of Major General L. R. Groves, a procedure was established in May 1945 whereby travel orders would





contain a statement directing the use of Government or Commercial Aireraft wherever necessary and further provided for only extracts of travel orders, containing only this statement, to be surrendered to the airlines. This procedure was approved by the Army Air Forces, and such approval is in the files of the District Engineer (see App. D-24).

b. Commercial Accounts.

- (1) General. The term "commercial account" as used in this discussion denotes vouchers covering direct procurement through the use of the War Department purchase orders, War Department Utility, Rental, and Communication Service Contracts, and interdepartment and interagency reimbursement vouchers. Such vouchers were the responsibility of the Finance Section in the District headquarters, and of commercial voucher units in those Area offices of sufficient size to warrant the establishment of a separate unit for this purpose. These Area units were a function and responsibility of the respective Area Chief Project Auditors. The commercial voucher unit in the District headquarters prepared and audited vouchers covering District headquarters commercial accounts, and performed a check audit of commercial vouchers prepared in Area offices.
- (2) <u>Voucher Channels.</u> The voucher transmittal channels, both from the Areas to the District Headquarters, and from the District headquarters to the Finance Officers, were similar to travel accounts, (see Par. 4-5a (2) & (5)). All vouchers received from the Area offices were recorded in the District office prior to audit. After





the audit has been performed, and the woucher submitted for payment, copies of the paid wouchers were returned by the Finance Officer. Payment data were then recorded and the paid woucher copies sent to the originating Area office for completion of their files.

- (8) Reports. In accordance with instructions of the War Department (see App. D-25 and D-26), and of the Office, Chief of Engineers (see App. D-27 and D-28), two reports pertaining to invoices were submitted to higher authority each month. A monthly report is submitted to the Fiscal Director, Army Service Forces, which tabulates the following information:
 - (a) Number of invoices on hand at the beginning of the month,
 - (b) Number of invoices received during the month,
- (c) Number of invoices transmitted to Finance Officers for payment during the month,
- (d) Number of invoices otherwise disposed of (i.e., invoices returned to wendors for correction, invoices returned as not pertinent to receiving office, etc.)
 - (e) Number of invoices on hand at the end of the month, and
- (f) Number of invoices on hand at the end of the month which are 60 or 120 days old, and the detailed cause for such delay. A copy of this report was furnished the Office, Chief of Engineers, for control purposes.

A report, containing information similar to that contained in the monthly report, covering the initial fifteen days of each month, was transmitted to the Office, Chief of Engineers.





These two reports were of great value as an aid in effecting prompt payment of accounts. They afforded supervisory personnel of all echelons a factual opportunity to evaluate the invoice situation at a glance and enabled them to take prompt corrective action. After the establishment of the monthly report in May 1944, and the establishment of the fifteen day report in January 1945, a decided improvement in the payment of commercial accounts was noted. Constant evaluation of these reports by the District headquarters brought excellent results and recent reports indicated that all offices of the District were on a current basis.





SECTION 5 - DISBURSING

5-1. General. - The disbursements made by authorized War Department officers follow, in general, the uniform procedures prescribed by the Comptroller General of the United States pursuant to the authority delegated to the General Accounting Office by the Budget and Accounting Act of 1921 (42 Stat. 20) (See App. D-1). These procedures, together with the procedures of the War Department, are published in the Finance Department series of Army Regulations and in Technical Manual 14-500 (See App. D-29) and form a basis for the disbursing activities of the District.

5-2. Decentralization of Disbursing Procedures.

Engineer Disbursing Office was established upon the inception of the Manhattan District. The purpose of this establishment was to provide for the prompt and regular payment of all just claims of contractors, vendors, and personnel within the scope of the Engineer Disbursing Officer's jurisdiction; to advise the District Engineer on technical finance and accounting policies; to expedite payments of vital importance; and generally to provide for the satisfactory transaction of public business. During the initial period, all reimbursement vouchers were substitted by all areas of the District to the Engineer Disbursing Officer in the District Headquarters for payment. During this period, also, new Areas of the District were established and many contracts were entered into. This tremendous expansion of District activities increased the disbursements of the Engineer Disbursing Officer from south to month, and resulted in a volume of business which was most unusual for such an establishment. This expansion of disbursements





on the part of the Engineer Disbursing Officer is indicated by Appendix B-7.

b. Contemplated Decentralization Procedures. - It became more and more apparent that a project with the complex magnitude and scope of the Manhattan District warranted decentralization of disbursing functions. Such a decentralisation, however, was not practicable if extended to Disbursing Officers operating outside the scope of the District's immediate and controllable security surveillance. To have attempted such a decentralization would have required that: (1) copies of contracts would have had to be filed with such Disbursing Officers designated to make payments for the Manhattan District. The rigid security exercised over these important documents could not permit the disclosure of their classified information to persons outside the control of the District. This factor of decentralization was of prime importance in the future decentralization procedures of the District; (2) Determinations of policy and other operational determinations would be subject to questions and queries by persons to whom the basis for such determinations could not be revealed. The security requirements of the District limited the dispersal of information to only those persons who required such information in the direct performance of their work. The necessary explanations and clarifying background which would have had to be divulged to outside Disbursing Officers could obviously not be so disclosed; (3) Vendors and individuals, whose relations with the Manhattan District, if known, would have resulted in a breach of security, would have been disclosed by the passage of vouchers to these outside Disbursing Officers. Many contractors of the District were nationally





known in various field of scientific research, and the disclosure of information which would link such contractors to District activities could not be permitted. This objection also covered the affiliations of the District with foreign concerns; (4) An undue burden would have had to be assumed by other Disbursing Officers. Large advance payments under classified contracts, and advances under Insurance Agreements had to be made. It was known that such transactions would result in automatic suspensions by the General Accounting Office, because of the internal procedures of that Agency, until such time as these advances would be liquidated. Because of the lengthy period of time over which such advances were expected to be outstanding, it was believed that undue curiosity would be aroused. It was, therefore, determined that these obstacles could best be overcome by the establishment of two additional Engineer Disbursing Officers within the District. This contemplated action would have resulted in establishing a Disbursing Office at the Hanford Engineer Works and a similar office at the Clinton Engineer Works. These two offices, together with the existing Engineer Disburning Office in New York, N. Y., would have been geographically located at the points of greatest financial activities, and would have hastened reimbursement as well as eliminating the undesirable elements of disbursements by Finance Officers outside the District. Formal proposal of such action was made by letter dated 31 May 1943 to the Chief of Finance through the Chief of Engineers, which requested appointment of Captain W. R. McCauley, Jr., and Lt. Martin K. Barrett as Engineer Disbursing Officers for the Clinton Engineer Works and the Hanford Engineer Works, respectively. (See App. D-30). This action was indersed by the Office,





Chief of Engineers to the Chief of Finance recommending this action. The proposal, however, did not meet with favorable consideration by that office. This disapproval was based on the grounds that: (1) Administrative Memorandum No. 23. Headquarters, Service of Supply, dated 18 August 1942, established the policy of appointing Disbursing Officers from Officers of the Finance Department; (2) Adequate finance service could be provided for the two major installations of the District by the Finance Officer, U. S. Army, Atlanta, Georgia, and by the Finance Officer, U. S. Army, Vancouver Barracks, Washington, both of whom were fully equipped to handle all classified items in accordance with regular procedures; (3) Expansion of activities, resulting in a greatly increased disbursing lead at either suggested Finance Office, would afford consideration for establishment of a Finance Officer, U. S. Army, at the appropriate Manhattan District installation: (4) The Finance Officer. U. S. Army, Knoxville, Temmessee, who had been established in that city only a short time before, could provide adequate finance service for the Clinton Engineer Works.

e. Decentralization as Effected. - Upon receipt of this counter proposal, a conference was held in the office of the Deputy Chief of Finance attended by General Hueper, Lt. Col. Savage, Mr. Estill Maylor, General Groves and Lt. Col. Vanden Bulck. It was determined at this time that: (1) The Finance Officer, U. S. Army, Enoxville, Tennessee, would process unclassified payments, and contract payments on a "strip-voucher", basis, i.e., supporting papers detached, processed through the District Office; (2) The Finance Officer, U. S. Army, Vancouver Barracks, would process unclassified payments, and contract payments on a "strip-veucher" basis for the Hanford Engineer Works; (3) The Finance Officer, U. S. Army, Fort



Bliss, Texas would process unclassified payments for the Santa Fe Area; (4) The Engineer Disbursing Officer would process all classified payments, and all payments to contractors whose affiliations with the District were detrimental to security, for all Areas of the District; (5) The General Accounting Office would be requested to provide Project Audit Groups for the Clinton Engineer Works and the Hanford Engineer Works; (6) The Finance Officers, U. S. Army, who were to be designated to pay Manhattan District accounts were to be instructed that prompt action would be required. Immediately after this conference with the Deputy Chief of Finance, another conference was held in the General Accounting Office attended by Mr. E. W. Bell, Mr. Estill Naylor, and It. Col. Vanden Bulck. It was determined that General Accounting Office Project Audit Groups would be established at the Clinton Engineer Works and the Hanford Engineer Works at the earliest possible time. These counter-proposals by the Chief of Finance were accepted by the "istrict, and effected in March 1944. It was felt that by processing payaents of a classified nature through the Engineer Disbursing Officer (Par. 5-2c (4)), and the use of a strip-voucher procedure (Par. 5-2c (1) and (2)), together with the establishment of General Accounting Office Project Audit Groups (Par. 5-2c (5)), the necessary security safeguards could be obtained.

5-3. Inspections by Higher Authority.

a. General. - A Disbursing Officer's money accounts are inspected twice annually by the Inspector General's Department, which details for this purpose inspectors who are in no way connected with the service making the disbursements. Such inspectors observe, report upon, and promote the general economic and administrative efficiency of the





Disbursing Officer being inspected. Inspections by the Inspector General's Department cover the necessity, economy, and propriety of all disbursements; operation of offices; completeness of records; and the making of deposits and the issuance of checks.

b. Inspections of Manhattan District Engineer Disbursing
Office. - The money accountability of the Engineer Disbursing Officers
of the District was accordingly inspected and verified as follows:

Accounts of Lt. Col. J. N. Harman

Inspections conducted in District Headquarters, New York, W. Y., on 20 November 1942 by the Second Service Command.

Accounts of Lt. Col. C. Vanden Bulck

Inspections conducted in District Headquarters, New York, M. Y., 5 April 1943 by the Second Service Command and in District Headquarters, Oak Ridge, Tennessee, on 22 June 1944, 8 December 1944, 13 June 1945, and 18 January 1946, by Fourth Service Command, and 10 June 1946 by Seventh Army.

Accounts of It. Col. C. C. Noble

Inspection conducted in District Headquarters, Oak Ridge, Tennessee, on January 10, 1947 by Seventh Army.





SECTION 6 - COST ACCOUNTING

- 6-1. General. The cost accounting procedures, methods and reports for the Manhattan Engineer District, as established and used, differ widely from the regular cost accounting requirements prescribed by the Chief of Engineers for the normal U. S. Engineer installation. By the very nature of the Manhattan District, it was impossible to assay at the outset the cost accounting requirements from an overall standpoint, or to give the subject the complete study and planning usually connected with the devising of an efficient and well integrated cost system. Therefore, it was necessary to approach the problem almost on a day to day basis.
- 6-2. Purpose. The principal objectives of the cost accounting functions may be stated as follows:
- a. To provide a simple, yet comprehensive set of cost accounts and procedures for all District activities.
- b. To provide control accounts as a means of checking costs as reported by contractors and Area offices.
- c. To provide, through periodic and special reports, information for use in forecasting intelligently the ultimate cost of different phases of the project furing the progress of the work.
- d. On construction work, to develop cost data necessary for the preparation of Form 39B (Costs), Final Detail Cost Statement as required by the Office of the Chief of Engineers Cost Accounting Manual, Chapter II, Military Activities. (See App. D-51).
 - e. To provide an internal check with the fiscal accounts.





- f. To furnish sufficient and reliable data on completed work for historical record purposes.
 - g. To provide basic cost data for special studies.
- h. To provide, through contractor maintained cost records, reliable cost data for the determination of:
- (1) The relative efficiency of operations between plants and different types of processes.
 - (2) Whether work is being performed economically.
- (3) Trends of cost figures in order to measure improvements.

6-3. Volume and Scope.

a. General. - From start of operations through 31 December 1946 three hundred fifteen thousand cost vouchers were processed by the District Cost Section resulting in gross costs of approximately \$2,200, 000,000. Total costs as of 31 December 1946 as reported on Cost Forms 39 and summary sheet are attached. (See App. B-8 and B-9)

b. <u>Costs Excluded</u>. - The gross cost figure in a, above is not all inclusive. Cost incurred from military funds listed below are not included:

- (1) Allotments by the Chief of Engineers to other agencies.
 - (2) Transportation Corps (open allotments).
- (3) Finance Department (pay, allowances, and travel of the Army).
 - (4) Miscellaneous procurements and depot issues of other





agencies not charged to Manhattan Funds or vouchered as free issues.

- (5) Expenditures by OSRD prior to the establishment of the Manhattan District.
- 6-4. Effects of Security. The rigid security regulations imposed on the project had a direct and positive effect on cost accounting procedures throughout the project, both government and contractor. On numerous occasions pertinent information was withheld from accounting personnel solely for security reasons, which often resulted in decisions contrary to good cost accounting practice. The division of the work among many contractors, which was motivated to a large degree by security, created many complex problems from a cost accounting control standpoint. Conversely some contracts cover a wide score of operation; such as, research, construction, manufacturing and special services all in one contract. In short, many contracts did not fit into a logical cost pattern.

6-5. General Procedures.

a. General. - The importance of cost accounting was fully recognized. A Cost Accounting Section under the Administrative Division was provided for in the original organization of the District. It devolved upon the Cost Section to devise ways and means to establish cost controls of sufficient reliability for the needs of the District. The Cost Section was given a free hand in this assignment. In accordance with the general policy of the "Wer Department, Office of the Chief of Engineers, Cost Accounting Manual, Chapter II, Military Activities", (see App. D-31), cost accounts were set up on a control or source basis, and the contractors were made responsible for maintaining adequate detailed cost accounts. Construction contractors were instructed to follow in general principle





permitted to devise their own cost systems, and these systems were reviewed by cost personnel of this sect on for adequacy. The general policy with reference to contractors' cost accounting records and reports is set out in more detail in Memorandum dated 18 January 1945 distributed as an inclosure to District Circular Letter (Costs 45-2) dated 18 January 1945. (See App. C-9).

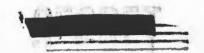
- b. Cost Accounting Frinciples. In general, cost accounts are divided into three main groups; namely, direct costs, indirect costs and deferred costs, Deferred cost accounts are used as "holding" accounts; these costs eventually are transferred either to direct cost accounts or indirect cost accounts whichever is applicable. Upon final a counting, all indirect costs are allocated to direct costs, and the final cost statement reflects the total cost incurred for the particular undertaking. If the undertaking is measurable by a given unit, a unit cost can be ascertained by dividing the total units into the total cost. This basic principle of cost accounting has been followed to the fullest extent possible in evolving the cost system currently in use. The necessity for simplification also was a prime factor considered in formulating methods and procedures.
- c. Classification of Accounts. An outline of the classification of cost accounts a intained in the District Office Cost Section is
- (1) District Overhead. Subdivided into functional accounts.





- (2) Area Overhead. One control account for each Area.
- (3) Hired Labor Accounts. Provided as required; with very few exceptions, all work was let to contractors.
- (4) Contract Costs (Regardless of Types). One control account was maintained for each individual prime contract subidivided as follows:
 - (a) Reimbursements and/or earnings.
 - (b) Fee Payments (Cost Plus Fixed Fee only).
 - (c) Insurance and Welfare funds.
 - (d) Items furnished by government at no cost.
 - (e) Special accounts as required.
- (5) General Ledger Accounts. Cash; allotments; receivables, including advances; payables, including accounts; contra accounts; and any other accounts required to maintain a self-balancing double entry set of cost ledgers.
- (8) Detail Cost Code. For the detail cost code, see Classification of Accounts (See App. C-10).
- accounts employed for original entries, it can readily be seen that they come within the category of deferred and indirect types of accounts.

 Therefore, the first entry merely records the source. The final application (end use) is left for later determination. The Cost Section did not have sufficient information available to it to permit direct application of costs. This was due, primarily to the strict security of the project, and secondly to the fast tempo of letting and changing contracts.



- d. Breakdown by Programs. In December of 1944, it was realised that a monthly cost statement prepared solely on a source basis was not sufficient for budgeting and cost control purposes. The District Control Section established a breakdown of the project by principal programs, and the program became the unit of control. The Cost Section, thereupon, was directed to change the method of reporting costs solely from a source basis to a combination of a source and program basis.

 Prom information furnished by the Control Section, the contract cost accounts were coded by programs, and the new method of reporting, which is in use at this writing, started with the report for December 1944.

 For a clearer presentation, an outline of the division by programs, in chart form, is included. (See App. A-5).
- e. Construction Costs. For construction costs, the intention was to follow the general requirements of the Office of the Chief
 of Engineers in the Cost Accounting Manual, Chapter II, Military Activities, and other directives on the subject. Cost data necessary for the
 preparation of Form 39B (Costs, "Project Cost Summary Military Punds,
 Final Detail Cost Statement" were developed as fast as conditions permitted.
- f. Research Costs. Cost of research work of a general nature from the start of the job through 30 June 1945 was charged to capital costs. After 30 June 1945, research costs were charged to operating programs. A new program "Post War" costs was added July 1, 1946.
- g. Operating Costs. No clear-out policy was established with reference to operating costs directly connected with the manu-





facture of the end product. Operations were carried on through a mase of contracts of all types. Because of the movement of the product through a series of successive steps involving many contractors, with production figures at each stage closely guarded, and because of the policy of not passing manufacturing costs of a parly processed material from one contractor to another or making available costs of raw material and manufacturing supplies, it was not deemed practical or desirable, as long as the war lasted, to attempt a cost system that would permit application of costs of inventories at any stage of production. Unit costs were developed by some of the contractors for their own particular operations, but in many cases, it did not represent the true cost because the cost of government furnished items was excluded and depreciation charges were omitted. Therefore, under the existing system, the only feasible final cost accounting report for operations was one stated in terms of contracts and progrems. To make the necessary changes that would enable the pricing of inventories, either base product or manufacturing supplies, at any stage of production, would require a survey and study of great magnitude.

6-6. Specific Procedures.

a. Accounts and Records. - The District basic cost records
were divided into two groups. Costs involving expenditures of funds
directly allotted to the Manhattan District were recorded in Group I,
Costs with no expenditures from Manhattan funds; such as, free issues,
transfers without reimbursements, ESA open allotments, distributions,
etc., were recorded in Group II. Each group or set of accounts consisted
of a control journal and cost ledger sheets. Each group was maintained





according to the principles of double entry bookkeeping and was selfbalancing. Group I was proved and reconciled with the District Fiscal accounts each month.

b. Area Accounts.

(1) General. - In addition to the cost accounts maintained in the District Office, the following Areas maintained cost accounts for work under their supervision:

Madison Square Area
Wilmington Area
New York Area
Chicage Area
Hanford Engineer Works

Santa Fe Area

All Area accounts, with the exception of Hanford Engineer Works and Santa Fe Area, tied in with the District accounts along the lines of branch accounting. Commencing 1 March 1944, cost accounts independent of the District accounts were established at Hanford Engineer Works.

Decentralised cost accounts were established at Santa Fe 1 July 1946.

personal supervision of all Area Cost accounting, excepting the Santa Fe Area. The general control accounts for this Area were maintained by the District, until June 30, 1946 and the Area was given authority to establish its own detail accounts (See App. D-32). Beginning July 1, 1946, Santa Fe maintained its own general control accounts and submitted reports to the District Office for consolidation.





c. Recording and Filing.

- (1) Cost Entries. Cost entries were prepared from disbursement vouchers, collection vouchers and transfer documents; hence,
 with few exceptions, costs were not posted to the cost records in the
 same month in which incurred. Therefore, the cost accounts were not a
 true reflection of actual costs incurred for a particular period. However, more up-to-date costs were ascertainable by taking into consideration the contractors, cost statements.
- (2) Cost Vouchers. Cost vouchers were numbered consecutively starting with number one each month and filed in numerical sequence by months.
- (3) Cost Ledger Sheets. Cost ledger sheets were filed by fiscal years with balances carried forward to new sheets 1 July of each year.
- (4) Contractors Cost Statements. Contractors cost statements were recorded on index cards and filed under contract name and number.
- 6-7. Cost Reports. Cost data were compiled in the form of cost statements each month by the District Cost Section, the Area Offices and CPFF contractors in accordance with existing Engineer Department procedures. Because of the District security program, cost reports were not submitted to higher authority. All cost reports were kept on file either in the District Office or in one of the Area Offices. No one person or department was given the authority to receive and file all cost reports; hence, cost reports were not accumulated in one file. The



majority of the reports were classified confidential or higher, even though ingredients used and products produced were shown in code only. Because of the many contractors, each using his own method of cost accounting, the resultant operations cost data were not uniform even on comparable operations. Certain studies, analyses and correlation of cost figures would be necessary in order to apply costs to specific purposes.

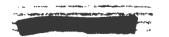


JECTION 7 - ORGANIZATION AND PERSONNEL

- 7-1. Initial Stages. At the time the Manhattan District was organised a nucleus of a fiscal organization was obtained from other Engineer Department offices. The personnel secured had been trained in Engineer Corps procedure and they established the initial systems necessary to carry on the work.
- 7-2. Development. As the District program increased, additional employees were obtained through the assistance of the Chief of Engineers, Engineer Divisions and Districts, and the Civil Service Commission.

 Fiscal personnel were placed in the area offices as those offices were established. In most instances, the area fiscal duties, except those pertaining to estimating and budgeting, were performed by the area audit groups. However, in the larger areas, such as Clinton Engineer Works, Hanford Engineer Works and Santa Fe, it was found necessary to organize units separate and distinct from the audit groups, to handle the finance and cost duties. The number of fiscal personnel throughout the District increased from approximately 180 employees in November 1943 to approvimately 460 employees as of 31 December 1945.
- 7-3. Organizational Changes. The increasing volume of work resulted in changes in the District office fiscal organization. These changes are indicated on organization charts. (See App. A-6, 7 and 8).
- 7-4. Responsible Individuals. The following responsible individuals were involved in fiscal procedures:
- a. Colonel J. C. Marshall District Engineer from August 1942 to August 1943.
 - b. Colonel K. D. Nichols Deputy District Engineer from





August 1942 to August 1943; District Engineer from August 1943 to present.

- e. Colonel E. H. Marsden Control Officer from January 1943 to August 1943; Executive Officer from July 1943 to present.
- d. Colonel D. E. Antes Special Inspector from August 1944 to present.
- e. Colonel J. M. Harman Disbursing Officer and Administrative Officer from August 1942 to February 1943.
- f. Lt. Col. C. Vanden Bulck Deputy Disbursing Officer and Assistant Administrative Officer from October 1942 to February 1943; Disbursing Officer from February 1943 to September 1946, and Administrative Officer from February 1943 to present.
- g. Lt. Col. C. A. Nelson Chief, Service and Control Division from August 1943 to November 1943.
- h. Maj. J. E. Travis Chief, Service and Control Division from November 1943 to February 1944; Chief, Inspection and Control Branch from June 1945 to date.
- i. Major D. C. Bogart, Jr. Deputy Disbursing Officer from July 1943 to May 1946; Fiscal Officer from November 1943 to present.
- j. Major B. G. Seits Assistant to Control Officer from January 1943 to August 1943; Chief, Control Section from August 1943 to June 1945; Chief, Reports and Statistics Section, June 1945 to present.
- k. Captain W. R. McCauley, Jr. Fiscal Officer from February
 1943 to November 1943; Deputy Disbursing Officer from March 1943 to June
 1943; General Accounting Office Lisison Officer from January 1944 to present.
- 1. Mr. J. C. Clarke Assistant to Administrative Officer from July 1944 to present.



- 7-5. Acknowledgment of Assistance. The following individuals greatly assisted the responsible individuals in the development and application of fiscal procedures:
- a. Colonel James P. La Croix Chief, Fiscal Division, Office, Chief of Engineers.
- b. Lt. Col. J. H. Savage Assistant Chief, Disbursement Division, Office of the Fiscal Director.
- c. Major N. D. Anderson Finance Officer, U. S. Army, Knoxville, Tennessee.
- d. Major D. L. York Finance Officer, U. 3. Army, Knox-ville, Tennessee.
- e. Lt. Col. E. F. Bullock Finance Officer, U. S. Army, Vancouver Barracks, Washington.
- f. Colonel Harry Foster Finance Officer, U. S. Army, Vancouver Barracks, Washington.
- g. Colonel B. C. Netcher Finance Officer, U. S. Army, Fort Bliss, Texas.
- h. Major Bert H. Heilpern Finance Officer, U. S. Army, Fort Bliss, Texas.
- i. Mr. W. W. Wiener Assistant to Finance Officer, U. 3.
 Army, Brooklyn, New York.
- j. Mr. E. E. Naylor Special Assistant to the Fiscal Director. U. S. Army.
- k. Mr. E. W. Bell Chief, Audit Division, General Accounting Office.
- 1. Ar. W. A. Willingham Assistant Chief, Audit Division, General Accounting Office.





Mr. F. D. Blackistone - Chief Cost Auditor, General Accounting Office, Oak Ridge, Tennessee.

n. Mr. Paul Goshorn - Chief Cost Auditor, General Accounting Office, Richland, Washington.





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